

WEST Search History

DATE: Thursday, July 11, 2002

Set Name Query

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result set

DB=USPT; PLUR=YES; OP=ADJ

L17	l13 same l16	27	L17
L16	(gas or vapor or vapour) adj (barrier)	6792	L16
L15	l12 and l13	12	L15
L14	l12 same l13	0	L14
L13	(polypropylene or polyethylene or polyolefin\$) adj (foam or foamed)	4132	L13
L12	(gas or vapor or vapour) adj (layer or film)	4096	L12

DB=DWPI; PLUR=YES; OP=ADJ

L11	L10 not l7	75	L11
L10	l4 and l8	79	L10
L9	L8 and l6	10025	L9
L8	extrud\$ or extrus\$	129181	L8
L7	l5 and l6	27	L7
L6	gas or vapor or vapour	855873	L6
L5	l1 same l2 same l3	343	L5
L4	l1 and l2 and l3	695	L4
L3	slit\$ or split\$ or incis\$ or cut or cutting	621663	L3
L2	cylinder or cylindric? or circle or circular	652628	L2
L1	foam or foamed	137167	L1

END OF SEARCH HISTORY

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L11: Entry 13 of 75

File: DWPI

Apr 20, 1999

DERWENT-ACC-NO: 1999-306956
DERWENT-WEEK: 199929
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TITLE: Manufacture of laminated sheet, used in packaging - comprises adding inorganic filler to polypropylene group non-foaming resin in contacts with cylindrical cooling drum

PATENT-ASSIGNEE:

ASSIGNEE	CODE
JSP CORP	JASY

PRIORITY-DATA: 1997JP-0291572 (October 8, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 11105132 A	April 20, 1999		007	B29C055/28

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP11105132A	October 8, 1997	1997JP-0291572	

INT-CL (IPC): B29 C 47/06; B29 C 55/28; B29 K 23:00; B29 K 105:04; B29 K 105:16; B29 L 9:00; B32 B 5/18; B32 B 27/32

ABSTRACTED-PUB-NO: JP11105132A
BASIC-ABSTRACT:

NOVELTY - Polypropylene group non-foaming resin film surface which makes contact with a cylindrical cooling drum contains at least 10 wt.% inorganic layers.

DETAILED DESCRIPTION - The raw material includes polypropylene group non-foaming resin film containing at least 10 wt. % inorganic fillers and a foaming polypropylene group resin sheet of density 0.5-1 g/cm³ and thickness 0.5-5 mm. The resin layers are subjected to cyclic extrusion through dies and the foaming resin layer is foamed. A cylindrical laminated object is formed which has the non-foaming resin layer laminated on both sides of the foaming layer. The laminate is cooled by contacting its inner surface with a cylindrical cooling drum and the laminate is cut open to obtain a sheet.

USE - Used in thermoforming food trays and containers.

ADVANTAGE - Film unification between the foaming and non-foaming resin layers is achieved. The laminated sheet has a smooth external surface, improved rigidity and heat resistance during thermoforming due to the presence of inorganic filler.

CHOSEN-DRAWING: Dwg.0/1

TITLE-TERMS: MANUFACTURE LAMINATE SHEET PACKAGE COMPRISE ADD INORGANIC FILL POLYPROPYLENE GROUP NON FOAM RESIN CONTACT CYLINDER COOLING DRUM

DERWENT-CLASS: A17 A32 A92 P73

CPI-CODES: A04-G01E; A08-R01; A11-B07D; A12-P01B;

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 ;
H0000 ; H0011*R ; S9999 S1581 ; S9999 S1309*R ; S9999 S1581 ; S9999 S1285*R ; P1150 ;
P1343 Polymer Index [1.2] 018 ; ND04 ; Q9999 Q8366*R ; Q9999 Q8399*R Q8366 ; N9999
N6097*R ; N9999 N6111 N6097 ; K9449 ; B9999 B4831*R B4740 ; B9999 B5243*R B4740 ;
K9676*R ; Q9999 Q7818*R ; N9999 N5812*R ; N9999 N5970*R ; N9999 N6086 ; ND07 Polymer
Index [1.3] 018 ; D00 ; A999 A237 ; A999 A771

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-090561

Non-CPI Secondary Accession Numbers: N1999-230131

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L11: Entry 29 of 75

File: DWPI

Mar 30, 1999

DERWENT-ACC-NO: 1990-149278
DERWENT-WEEK: 199931
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TITLE: Foamed polyolefin sheets prods. - by extruding polyolefin-blowing agent mixt.
through annular die and passing extruded foamed tubular body over cylindrical cooling
device

INVENTOR: ISHIHARA, Y; IWANO, S ; WAKABAYASHI, K ; WAKABAYASH, K

PATENT-ASSIGNEE:

ASSIGNEE

JAPAN STYRENE PAPER CORP

CODE

JASY

PRIORITY-DATA: 1988JP-0285289 (November 11, 1988), 1992US-0960263 (October 13, 1992)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CA 2002721 C	March 30, 1999		000	B29C044/50
EP 368302 A	May 16, 1990		008	
JP 02130120 A	May 18, 1990		000	
CA 2002721 A	May 11, 1990		000	
US 5281119 A	January 25, 1994		006	B29D023/00
US 5281377 A	January 25, 1994		007	B29D007/00
EP 368302 B1	May 17, 1995	E	012	B29C044/00
DE 68922697 E	June 22, 1995		000	B29C044/00
JP 2649564 B2	September 3, 1997		005	B29C047/88

DESIGNATED-STATES: DE FR GB DE FR GB

CITED-DOCUMENTS:1.Jnl.Ref; A3...9135 ; EP 231657 ; FR 2375021 ; GB 1102239 ; GB 1400494
; JP56069132 ; NoSR.Pub ; US 3194864 ; US 3311681 ; US 3661482 ; US 3822331

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
CA 2002721C	November 10, 1989	1989CA-2002721	
EP 368302A	November 9, 1989	1989EP-0120745	
JP02130120A	November 11, 1988	1988JP-0285289	
US 5281119A	November 8, 1989	1989US-0433157	Div ex
US 5281119A	August 9, 1990	1990US-0564561	CIP of
US 5281119A	October 7, 1992	1992US-0958457	
US 5281377A	November 8, 1989	1989US-0433157	CIP of
US 5281377A	January 27, 1992	1992US-0826424	CIP of
US 5281377A	October 13, 1992	1992US-0960263	
EP 368302B1	November 9, 1989	1989EP-0120745	
DE68922697E	November 9, 1989	1989DE-0622697	
DE68922697E	November 9, 1989	1989EP-0120745	
DE68922697E		EP 368302	Based on
JP 2649564B2	November 11, 1988	1988JP-0285289	
JP 2649564B2		JP 2130120	Previous Publ.

INT-CL (IPC): B29C 44/00; B29C 44/50; B29C 47/00; B29C 47/20; B29C 47/88; B29C 53/20; B29C 67/22; B29D 7/00; B29D 23/00 ; B29K 23/00; B29K 23/00; B29K 105/04; B29K 105/04; B29L 7/00; B29L 7/00; B29L 23/00; C08J 9/14

ABSTRACTED-PUB-NO: EP 368302A
BASIC-ABSTRACT:

A foamed polyolefin sheet is produced by extruding a molten polyolefin resin contg. a blowing agent into a low pressure zone through an annular die at the end of an extruder to form a foamed tubular body; contacting the foamed tubular body with a peripheral surface of a cylindrical cooling device to cool the foamed tubular body, whereby the cylindrical cooling body is divided into at least two sections and the internal pressure of the foamed tubular body is increased between the die and the upstream section of the cylindrical cooling device and also between at least two adjacent sections of the cylindrical cooling device to apply tension to the foamed tubular body at the inner wall; and then slitting the cooled foamed tubular body in the direction of extrusion to open it into a sheet.

USE/ADVANTAGE - The use of a cylindrical cooling device as specified allows foamed polyolefin sheets to be made using cheap blowing agents having high foaming speeds, esp. butane, while giving foamed sheets which are free from the corrugations found on previous foamed polyolefin sheets made in this way. The freedom from corrugations gives prods. of improved appearance and allows prodn. of cut sheets of increased accuracy and improved bonding performance in the prodn. of laminates.

ABSTRACTED-PUB-NO:

EP 368302B
EQUIVALENT-ABSTRACTS:

A process for producing a foamed polyolefin sheet by extruding a molten polyolefin resin, which contains a blowing agent, into a low-pressure zone through an annular die (2) provided at an end of an extruder (1) to form a foamed tubular body (4), passing the foamed tubular body along the peripheral surface of a cylindrical cooling device to cool the foamed tubular body (4) and then slitting the thus-cooled foamed tubular body (4) in the direction of extrusion to open the foamed body, which process is characterised by bringing the foamed tubular body (4) in contact with the peripheral surfaces of at least two sections (3a,3b) of a cylindrical cooling device received by dividing said cylindrical cooling device and increasing the internal pressure of the foamed tubular body (4) to apply tension to the foamed tubular body (4) at the inner wall by feeding air through air outlets (5,6) of an air feed pipe (50) between the die (2) and the most upstream section (3a) of the cylindrical cooling device and also between at least two adjacent sections (3a,3b) of the cylindrical cooling device and thereby cooling the foamed tubular body (4) by the air thus fed.

US 5281119A

An. appts. for forming foamed polyolefin sheet has an expansion ratio of more than 15

from a foamed tubular body extruded through an annular die at the end of an extruder. The appts. comprises a cylindrical cooling device which contacts the tubular body interior in use and has at least one upstream section and downstream section of max. dia. smaller than the distance from an upstream end of the device to the downstream end; the die and device obeying $DD/MD = 0.1-0.5$ where DD is ring dia. of the die and MD is the max. dia. of the device.

An air blower has an outlet feeding the body inner wall between the die and cooling device upstream end and an outlet feeding the inner wall between two device sections; the blower operation at $5 \times 10^{xpower-4-3 \times 10^{xpower-2}}$ kg/cm² for tensioning the body inner wall. A device is provided for slitting the body in the extrusion direction. The length of cooling device must obey defined relationships.

ADVANTAGE - Fewer corrugations using butane blowing agent.

US 5281377A

Producing a foamed sheet comprises (a) extruding a molten polyolefin resin contg. a blowing agent into a low-press. zone through an annular extrusion die of ring dia. DD provided at an end of an extruder to form a foamed tubular body at an expansion ratio of 15 or above, and (b) contacting the body with a surface of the cooling device. The device has downstream and upstream sections and a max. dia. MD by DD/MD of 0.1 to 0.5. Gas is introduced into the body between the die and cooling device upstream section and between two sections to increase to form $5 \times 10^{xpower-4-3 \times 10^{xpower-2}}$ kg/cm² its internal pressure to tension it before slitting in the extrusion direction. The cooling device section length divided by its max. dia. is between 5 and 1.5; the interval between sections divided by the length of the cooling device is between 3 and 0.34 and the max. dia. over length is between 0.28 to 0.04.

ADVANTAGE - Redn. in corrugation formation is achieved.

CHOSEN-DRAWING: Dwg.0/1 Dwg.1/1 Dwg.0/1 Dwg.0/1

TITLE-TERMS: FOAM POLYOLEFIN SHEET PRODUCT EXTRUDE POLYOLEFIN BLOW AGENT MIXTURE THROUGH ANNULAR DIE PASS EXTRUDE FOAM TUBE BODY CYLINDER COOLING DEVICE

DERWENT-CLASS: A17 A32

CPI-CODES: A04-G01C; A08-B04; A11-A02C; A11-A05A; A11-B06B; A12-S04A2; A12-S07;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0804U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 3003 0223 0229 0232 0239 0246 2306 3222 2358 2368 2445 2446 2458 3241 2510 2522 2534 2536 2601 2604 2628 2634 2635

Multipunch Codes: 014 03- 041 046 047 048 13- 331 369 371 415 437 448 449 455 489 491 502 54& 541 542 547 551 56& 560 566 567 572 573 602 674 688 720 726

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1990-065324

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L11: Entry 35 of 75

File: DWPI

Feb 24, 1988

DERWENT-ACC-NO: 1988-051975
DERWENT-WEEK: 198808
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TITLE: Mfg. containers with rectangular outer section and cylindrical cavity - by
extrusion, cutting into sections and sealing on base and top formations.

INVENTOR: INSTANCE, D J

PATENT-ASSIGNEE:

ASSIGNEE

CODE

INSTANCE D J

INSTI

INSTANCE D J LTD

INSTN

PRIORITY-DATA: 1986GB-0019337 (August 7, 1986), 1986GB-0030546 (December 22, 1986)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
GB 2193943 A	February 24, 1988		000	
CA 1270358 A	June 19, 1990		000	
DE 3751080 G	March 30, 1995		000	B29D022/00
EP 259020 A	March 9, 1988	E	000	
EP 259020 B1	February 22, 1995	E	013	B29D022/00
GB 2193943 B	March 21, 1990		000	
US 4781773 A	November 1, 1988		009	

DESIGNATED-STATES: AT BE CH DE ES FR GB GR IT LI LU NL SE AT BE CH DE ES FR GB GR IT LI
LU NL SECITED-DOCUMENTS: 1.Jnl.Ref; A3...8943 ; DE 2435370 ; DE 3113810 ; EP 156750 ; GB 2156265
; JP60242514 ; No-SR.Pub ; US 2913768 ; US 4024694 ; US 4531991 ; US 4569875 ; EP
126575

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
GB 2193943A	December 22, 1986	1986GB-0030546	
DE 3751080G	August 6, 1987	1987DE-3751080	
DE 3751080G	August 6, 1987	1987EP-0306985	
DE 3751080G		EP 259020	Based on
EP 259020A	August 6, 1987	1987EP-0306985	
EP 259020B1	August 6, 1987	1987EP-0306985	
US 4781773A	August 11, 1987	1987US-0084634	

INT-CL (IPC): B29 C 44/00; B29 C 47/02; B29 C 69/00; B29 D 22/00; B65 D 6/02

ABSTRACTED-PUB-NO: EP 259020B

BASIC-ABSTRACT:

Elongate tube of plastics having a rectangular outer cross-section and a circular
cylindrical bore is extruded, cut transversely into a number of container body sections

and each section has a base sealed to one end and a top sealed to the other end.

Pref. tube is extruded in a foamed plastics and has a coextruded tube liner, or a liner formed of a sheet web of plastics having its edges sealed together. The top may be removable closure or a plastics sheet. The top or base may have a strip of magnetic material for recording information on the container contents.

USE/ADVANTAGE - Forming containers, partic. for pharmaceutical pills or tablets. Provides a container which can be formed on site with a rectangular outer section which is easy to handle and label by automatic machinery and easier to pack. The outer section can be of constant size with the inner cavity varied to cater for different packaging quantities.

ABSTRACTED-PUB-NO:

GB 2193943A

EQUIVALENT-ABSTRACTS:

A method of manufacturing containers (16) the method comprising the steps of:- (a) extruding an elongate tube (32) of plastics material, (b) cutting the tube (32) transversely into a plurality of container body portions (2); (c) sealing a base (12) to one end of each body portion (2); and (d) sealing a top (18) to the other end of each body portion (2); access line characterised in that the extrusion step (a) is carried out using an extrusion step (a) is carried out using an extrusion die (52) having a rectangular die cavity (56) with a circular-section body (60) therein whereby the tube has a rectangular outer cross-section and an elongate central cylindrical cavity.

GB 2193943B

A method of manufacturing containers, the method comprising the steps of: (a) extruding an elongate tube of plastics material, the tube having rectangular outer cross-section and an elongate central cylindrical cavity; (b) cutting the tube transversely into a plurality of container body portions; (c) applying a base to one end of each body portion; and (d) applying a top to the other end of each body portion.

US 4781773A

Containers are mfd. by cutting an extruded plastics tube of rectangular cross-section into lengths to whose ends are sealed by a base and a top. After the base has been sealed in position the container is filled with pills prior to the top being sealed. The plastics material is pref. foamed. ADVANTAGE - Containers of different sizes and are easy to label can be produced..

(9pp)

CHOSEN-DRAWING: Dwg.3/12 Dwg.0/12

TITLE-TERMS: MANUFACTURE CONTAINER RECTANGLE OUTER SECTION CYLINDER CAVITY EXTRUDE CUT SECTION SEAL BASE TOP FORMATION

DERWENT-CLASS: A32 A92 P73 Q32

CPI-CODES: A11-A05B; A11-B07B; A12-P06;

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0223 0229 2343 2356 2358 2359 2429 2433 2437 2445 3234 3237 2454 2458 2513 2522 2534 2536 2540 2720 2722 2726 2742 2775 2787

Multipunch Codes: 014 03- 289 371 375 381 415 431 435 443 448 450 454 455 477 489 491 50& 50- 502 57& 623 627 653 674 694 726

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1988-023002

Non-CPI Secondary Accession Numbers: N1988-039444